

REMARKS

Claims 1-8 and 10-42 remain in the application for consideration of the Examiner with Claims 9 and 43 standing cancelled.

Reconsideration and withdrawal of the outstanding rejections are respectfully requested in light of the above amendments and following remarks.

Claims 1-9 and 19-43 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which is not described in the specification in such a way to reasonably convey to one of ordinary skill in the art.

The Examiner's concerns are what differentiates the voltage mode from the charge mode, how the switching of the mode is done, how does the circuit change when the piezo electric is driven in voltage mode or charge mode, what is defined as voltage mode, and what is defined as current mode.

In this connection, the Examiner's attention is directed to paragraph 10 et seq and paragraph 33 et seq of the instant specification.

Here, Applicants have described in the specification in such a way to reasonably convey to one of ordinary skill in the art at the time of the invention was filed the claimed invention.

Claims 1-9 and 19-43 are in full compliance with 35 U.S.C. § 112.

Claims 1-9 and 19-43 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

These rejections are traversed in part.

With respect to compensation, the Examiner's attention is directed to paragraph 17 et seq.

Next, the Examiner questions selectively connected.

The Examiner's attention is directed to paragraph 43 et seq of the instant application.

The remaining rejections have been overcome by amendment to the claims, taking into consideration the helpful comments of the Examiner.

Claims 1-8 and 10-42 are in full compliance with 35 U.S.C. § 112 and particularly points out and distinctly claims the subject matter in which Applicants believe is their invention.

Turning now to the art rejections, Claims 1, 6-9, 19, 24-27, 32-35, and 40-43 were rejected under 35 U.S.C. § 103 as being unpatentable over Fontanella, Hanks, and Murray; and Claims 2, 3, 5, 20, 21, 23, 28, 29, 31, 36, 37, and 39 were rejected under 35 U.S.C. § 103 as being unpatentable over Fontanella, Hanks, and Murray in view of Sullivan.

These rejections are respectively traversed.

It is respectfully submitted that Fontanella does not disclose or suggest the presently claimed invention including the driving circuit for selectively driving the piezoelectric element in either a voltage mode or charge mode in independent Claim 1, a class AB amplifier connected to receive the output from the class A amplifier to selectively provide either a current mode driving signals or voltage mode driving signals to the piezo element in independent Claim 10, the step of selectively driving the piezo element in either the voltage mode or the charge mode in independent Claim 19, the means for selectively driving the piezo element in either a voltage mode or a charge

mode in independent Claim 27 albeit defined as a driving circuit for selectively driving the piezo element in either a voltage mode or charge mode in independent Claim 35.

Applicants agree with the Examiner that Fontanella does not disclose that the piezo element may be driven in a voltage mode or in a charge mode as evidence by the top of page 6 of the Office Action.

Hanks does not disclose or suggest the presently claimed invention including the driving circuit for selectively driving the piezo element in either a voltage mode or a charge mode as defined in the various forms in independent Claims 1, 10, 19, 27, and 35.

The Examiner alleges that Hanks discloses that a piezoelectric element may be driven in a voltage mode referring to Figure 4 or the charge mode referring for Figure 5.

However, Hanks does not disclose a single circuit for selectively driving the piezoelectric in either a voltage mode or the charge mode.

The circuits of Figure 4 and Figure 5 are separate embodiments.

Additionally, whether Murray discloses avoiding unwanted energy absorption and whether one of ordinary skill in the art would consider modifying Hanks or Fontanella is of no moment since the result in construction would still in no way disclose or suggest the presently claimed invention.

Furthermore, whether or not Sullivan discloses a circuit for adjusting an output impedance and whether or not one of ordinary skill in the art would consider modifying Fontanella, Hanks, or Murray is of not moment since the result in construction would still in no way disclose or suggest the presently claimed invention.

Applicants respectfully submit that Hanks, Murray, and Sullivan do not relate to mass storage devices.

Hanks relates to a control system for an airbag.

Murray relates to an admittance circuitry. While Sullivan relates to a power supply for an electrical mechanical device.

These references do not relate to a piezo element in a milli-actuator device and a mass storage device.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,



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